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## ABSTRACT

A study was conducted to develop reliable measures of parents' perceptions or concerns about their children's progress in the domain of peer relations, and to assess the relationship between perceptions of progress and concerns. The study sample consisted of 62 white, preschool children (34 girls and 28 boys) and their mothers and teachers. Participants were recruited from 14 child care centers in Indiana and Illinois. A home visit was scheduled with each family to obtain measures of mothers' perceptions of progress, perceived parental control over the child's behavior, perceived difficulty of affecting change in the child's behavior, and concerns. Mothers were asked to complete a questionnaire about their policies for informal peer play activities in the home, and to report on their child's peer contacts outside of school. Teachers were asked to rate children's classroom social behaviors and peer relations on the Preschool and Kindergarten Teacher Rating Scale. It was found that girls were viewed as being more advanced in peer relations than boys. For both genders, mothers of preschoolers saw their children as more sociable than prosocial. Although the level of concern reported by mothers in the sample was not high, when higher levels of worry were reported, these were more often associated with children's sociability than with their prosocial behavior. Mothers were particularly concerned about behaviors that they saw as difficult to influence and control. Mothers who held a high opinion of their child's sociability worried less, and tended to be more involved in their child's informal play activities, than mothers with lower opinions of their child's sociability. A 20-item bibliography is included. (AC)

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**Mothers' Perceptions and Concerns About Their Preschool  
Children's Progress in Peer Relations**

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# Mothers' Perceptions and Concerns About Their Preschool Children's Progress in Peer Relations

Traditionally, researchers in the field of social development have emphasized the importance of the mother-child relationship and the peer-child relationship. Recently, however, social systems, such the family, have been believed to be related to a larger network of systems including the peer system (Belsky, 1984; Parke & Tinsley, 1984; Tinsley & Parke, 1983, 1984). Researchers tend to view the process of influence between families and other social systems as bi-directional. Families, for example, may influence children's peer relations while the reverse may also be true.

Investigators have conceptualized linkages between the family and peer systems as "indirect" or "direct" pathways (Parke, MacDonald, Beitel, & Bhavnagri, 1988). Indirect pathways include aspects of parenting and the parent-child relationship that occur for purposes other than explicitly fostering competence with peers. Examples of family processes that can be viewed as indirect influences include attachment, abuse, child-rearing styles, discipline, marital relations, and parental pathology (see Cooper & Cooper, in press; Cicchetti, Lynch, Shonk, & Manly, in press; Zahn-Waxler, Denham, & Iannotti, in press).

Direct pathways are defined as activities or processes that parents engage in as a way of controlling or enhancing their children's skills and relationships with peers. The concept of parental management describes the means by which these functions

are accomplished. For young children, management includes parents' attempts to plan, regulate, and modify children's social environments and relationships with peers. Such activities include parents' efforts to involve children in peer-oriented settings, arrange play contacts, plan and supervise children's peer activities, and advise or consult with children outside of their peer interactions (Ladd, 1991; Ladd & Coleman, in press; Ladd, Le Sieur, & Profilet, in press).

Recent findings (e.g. Bhavnagri & Parke, 1985; Bhavnagri, 1987; Finnie & Russell, 1988; Ladd & Golter, 1988) illustrate that parents vary greatly in the degree to which they are involved in children's peer relations and in the forms of management they employ. Yet very little is known about factors that may be responsible for these differences. One possibility is that variations in parents' involvement may be a reflection of differing cognitions and motivations concerning children's social needs and development. Several cognitive and motivational factors have been proposed as possible influences of parent involvement in their children's peer relations. Recently, investigators have studied parents' socialization history (Putallaz, 1989; Putallaz, Costanzo, & Smith, 1991) and suggested that parents' memories of their own childhood peer experiences may influence their current socialization perspectives and practices. These researchers have shown that mothers with positive peer memories perceive their children as more socially competent and mothers with anxious/lonely memories tend to have children who become well-accepted by peers.

In addition to parents' memories, other types of parental cognitions may function as motivational influences of management practices. Rubin and colleagues (Mills & Rubin, 1990; Rubin, Mills, & Rose-Krasnor, 1989) have examined the potential importance of parents' beliefs about child development, and have shown that mothers' beliefs are related to their methods of teaching children social skills and their strategies for handling problematic behavior. Parents may also engage in different management practices as a function of the social issues they value. Some parents, for example, may place more importance on assertive behaviors, whereas others may value the development of expressive behaviors. Rubin et al., (1989) found that mothers who emphasized the importance of social skills tended to have children who displayed higher levels of social competence.

It seems likely that parents' perceptions of children's needs and competencies in peer relations and their related concerns may be an important motive for their management activities. Parents who view their child as shy or withdrawn may tend to promote their social interactions (Ladd & Golter, 1988). It is also possible that parents who are worried about their children's peer relationships may become more involved in the management of their peer contacts. Based on these premises, we reasoned that mothers' perceptions of children's progress in peer relations and their concerns may be related to their involvement in children's peer activities and their policies about their children's play opportunities.

Given that previous investigators have not measured dimensions such as parents' progress perceptions or concerns in

the domain of children's peer relations, the initial aim of the present study was to develop reliable measures of these two constructs. Toward this end, mothers participated in a home interview and were asked to complete two questionnaires which were designed to assess their progress perceptions and concerns about children's peer relations. Progress perceptions were defined as mothers' views of their child's developmental position (e.g., ahead versus behind), relative to peers, on a variety of social competence criteria. The same criteria were used to assess concerns which were defined as the degree to which mothers felt worried about their child's current competence in peer relations.

The second aim of this study was to determine if mothers' progress perceptions and concerns were related. In general, we anticipated that perceptions of delayed progress would be positively associated with concern. It is likely that mothers who view their children as behind in peer relations would worry more than mothers who view their children as ahead of peers. Moreover, concern may be greatest for areas of competence parents see as unchangeable or difficult to influence. For example, mothers may feel greater concern if they perceive that they have little control over certain aspects of their child's social behavior or peer relations, or see such aspects of development as difficult to change. Perceived control was defined in this study as the degree to which parents view children's social characteristics and behaviors as fixed (e.g., immutable) or changeable. Perceived task difficulty was defined as the

parents' appraisals of the socialization effort required to modify children's social behaviors and characteristics.

Finally, a third aim of this study was to determine whether progress perceptions and concern predict specific management behaviors, and to examine the relative importance of each perception. Two forms of parental management were investigated as potential correlates of parents' progress perceptions and concerns. These included mothers' policies about children's informal peer relations and their involvement in their children's play activities with peers. Perceived child delays and concerns may cause parents to change their policies and increase their involvement. Policies were defined as parents' plans for their children's peer contacts in the home. Involvement was defined as parents' directive or interactive supervision in their children's play activities with peers.

Policies were assessed by asking mothers to provide information about the frequency with which they encouraged their child to play with a friend and the extent to which children (versus mothers) determined the focus of their own play activities with peers. A series of telephone interviews were conducted to assess the degree to which mothers were involved in their children's play activities with peers. During these interviews, mothers were asked to describe their children's peer contacts for each of six days, including the location and duration of play, types of playmates, and ways in which the contact was supervised. Directive supervision was defined in this study as the degree to which mothers were verbally involved and instructed children during their play activities or behavior.

This type of supervision may function to support the child's interactive skills, resolve conflicts, and gain compliance from the child during peer interaction (Ladd, Le Sieur, & Profilet, in press). Interactive supervision was defined as the degree to which mothers became an active member or participant in the children's play. During participation in the play activity, mothers may impact the direction or flow of play, shape the course of peer interactions, and prompt specific behaviors (Ladd, Le Sieur, & Profilet, in press).

It was hypothesized that mothers who perceive their children to be behind in peer relations and feel concerned may more often encourage their children to play with a friend. Mothers who view their child as "ahead" in peer relations may permit greater autonomy and allow the child to determine the focus of their play activities with peers. It was also predicted that perceived child delays and higher levels of concern, as reported by mothers would be associated with greater verbal involvement and participation in children's play. These mothers may try to help their child become more successful in peer relations by being involved in their play activities with peers.

#### METHOD

##### Sample

Sixty-two white preschool children (34 girls and 28 boys) and their mothers and teachers participated in this study. Participants were recruited from 14 child care centers in central Indiana and central Illinois. These schools served predominantly white, middle income families. Informed consent letters were

sent to parents and only those who agreed to participate were asked to participate in the study. Of the families in this sample, 90% had two parents living in the home. Children were between 43 and 72 months of age. The investigators in this study were female graduate and undergraduate students.

#### Measures of Parent Perceptions

A home visit was scheduled with each family to obtain measures of perceived progress, perceived control, perceived task difficulty, and concerns. Policies about play opportunities were also assessed during this visit. The measures were administered in order listed above.

Perceived progress. Mothers' views of their children's progress in social skills and peer relations were assessed with a 20-item questionnaire (See Table 1). Mothers were asked to rate their child's progress on each item using a 7-point scale ranging from "behind" to "ahead".

Perceived control. Perceived control was measured by asking mothers to rate the degree to which they saw their child's social characteristics and behaviors as changeable on a questionnaire containing the 20 items listed in Table 1. Mothers were asked to rate the degree to which they thought they could change the social behavior or characteristic described in each item. Ratings were made on a 7-point "degree of change" scale, ranging from "not much" to "a lot".

Perceived task difficulty. As a measure of perceived task difficulty, mothers were asked to estimate how hard versus easy it would be for them as parents to affect change in each of the targeted child social behaviors or characteristics. Estimates of

perceived difficulty were obtained for each of the 20 items shown in Table 1, by asking mothers to rate each item on a 7-point scale which ranged from "very difficult" to "very easy".

Parental concerns. Concern was measured by asking mothers to rate their concern on the same 20 items employed on the progress scale. Mothers were asked to rate the degree to which the content of each item was a source of concern or worry, using a 7-point scale ranging from "not concerned" to "very concerned".

#### Measures of Parental Management

Policies about play opportunities. Mothers were also asked to complete a questionnaire about their policies for informal peer play activities in their home. Two policy measures were obtained by asking mothers to rate: (a) the degree to which mother versus child typically determine what the children will do together (7-point scale ranging from "parent decides" to "child decides"), and (b) the frequency with which the mother encourages the child to get together with a playmate (7-point scale ranging from "seldom -- less than once a month" to "often -- every day").

Parent telephone logs. A telephone interview developed by Ladd and Golter (1988) was used to assess children's nonschool peer contacts during 4 weekdays and 2 weekend days. During the home visit, mothers were taught how to observe and report information about their child's peer contacts. The interviews followed a standardized protocol patterned after Ladd and Golter (1988). Within two-parent families, mothers were asked to report the behavior of both parents. Five telephone calls to each

mother began approximately one week after the home visit. Each call was conducted by a trained female graduate or undergraduate student during the evening after the child's bedtime on days in which the mother considered typical of the child's social activities. Each call was approximately 15 minutes in length.

During each interview, mothers were asked to divide the day into three time periods of morning, afternoon, and evening and report their child's peer contacts during each period. As in Ladd and Golter (1988), a peer contact was defined as "an activity or series of activities continuously performed by the child with one or more children in a nonschool setting" (p.111). The beginning and end of each contact was defined by a change in play partners or ending of play. For each reported contact, mothers were asked to list the names of any caretakers who had been present for the contact and describe their activities. Contacts were considered to be supervised if the parent was verbally involved or participated in the children's play.

In this study, parental involvement was measured by having interviewers rate parents' verbal involvement during children's play with a familiar peer (5-point scale ranging from "seldom instructed" to "often instructed"). Interviewers also rated parents' participation in play (5-point scale ranging from "seldom participated" to "often participated"). Interviewer ratings were averaged over all the peer contacts that were supervised by the parent. This rating system has been found to be reliable (Cohen's Kappa > .80) (Ladd & Hart, 1981).

### Measures of Child Social Competence

Teacher perceptions of social competence. With the parents' permission, teachers rated children's classroom social behaviors and peer relations on an 81-item scale (i.e., the Preschool and Kindergarten Teacher Rating Scale - PKTRS). The PKTRS contained original and revised items from several other child behavior rating scales (e.g., the Preschool Behavior Questionnaire, Behar, 1977; California Preschool Social Competence Scale, Levine, Elzey, & Lewis, 1988). Factor analysis (factor pattern, inspection of item content) was used to create 4 reliable (alphas > .87) subscales, labeled prosocial containing 9 items (e.g., shares willingly with peers), outgoing containing 7 items (e.g., sociable child), antisocial containing 8 items (fights with other children), and asocial behavior containing 8 items (e.g., likes to be alone).

### Demographic Measures

To assess sample demographics, each parent was asked to complete a family information questionnaire. Data was obtained on mothers and fathers educational levels (years of schooling), mothers occupation, and family income.

## RESULTS

### Perceived Progress Measure

As can be seen in Table 2, item means on the measure of mothers' perceived progress fell near the center point of the scale (averaged 4.51) indicating no serious ceiling or floor effects. Item standard deviations averaged 1.19 suggesting that satisfactory item variability was attained.

Exploratory factor analysis was used to examine the way mothers structured the items used to tap their perceptions of children's progress in peer relations. The analysis produced 4 factors (see Table 3). Inspection of item loadings and content suggested that two dimensions of perceived progress could be extracted from this data. Based on item content, the first factor was labeled "Prosocial Behavior". The three remaining factors were highly correlated ( $r$  range from .83 to .80). Of these three factors, the one with the largest and most interpretable set of items (Factor 2) was designated "Perceived Peer Sociability" and retained for further analysis. Alphas for these two subscales were .81 and .92, respectively. The degree of relation among the retained subscales was examined by summing the ratings children received on the prosocial and sociability factors and correlating the resulting scores ( $r=.80$ ,  $p<.01$ ). Similar correlations were obtained between these subscales for both boys and girls.

Test-retest reliability was estimated by administering the scale to 24% of the parents in the sample on two occasions separated by a two-month interval. The stability coefficient for these scores was .87 for the prosocial dimension and .94 for the sociability dimension.

As an estimate of the concurrent validity of mothers' perceptions of their children's progress, mothers' progress perceptions and teacher behavior ratings were correlated. In general, it was expected that mothers' ratings of their children's progress in the domains of prosocial behavior and sociability would correlate positively with teachers' ratings of

children's actual behaviors on similar dimensions (i.e., prosocial and outgoing behavior). Also, mothers' progress ratings for prosocial and sociable behavior were expected to correlate negatively with teachers' ratings of antisocial and asocial behavior, respectively.

As predicted, mothers' progress perceptions of prosocial behavior and teacher ratings of prosocial and outgoing behavior were positively correlated (See Table 4). Mothers' progress perceptions of sociability were positively related with teacher ratings of outgoing behavior and negatively related with teacher ratings of asocial behavior. Significant negative correlations were found between mothers' perceived progress in prosocial behavior and teacher ratings of antisocial behavior and asocial behavior.

#### Parental Concerns Measure

Most of the mothers sampled in this study did not report high levels of concern. As illustrated in Table 5, item means on the measure of mothers' concerns clustered near the lower end of the scale ( $\bar{x}=2.42$ ). However, standard deviations averaged 1.38, and 95% of the scores ranged from 1 to 4.85 suggesting adequate item variability. Scores ranged from 1 to 7 suggesting that respondents used the entire range of scale points.

Principal components analysis with varimax rotation was used to examine dimensionality and to identify potential subscales of the concerns measure. Inspection of the resulting factor pattern suggested that the items formed a single factor

(that the scale was unidimensional) (See Table 5). Cronbach's alpha for this factor was found to be .97.

Test-retest reliability was estimated by administering the scale to 23% of the parents in the sample on two occasions separated by a two-month interval. The stability coefficient for these scores was .78.

#### Gender Differences in Perceived Progress and Concerns

Another aim of this investigation was to determine whether mothers' progress perceptions and concerns varied by social domain and child's gender. Gender differences in mothers' progress perceptions were explored with a 2 (child's gender) by 2 (social domain: prosocial behavior and sociability) repeated measures ANOVA, with domain as a repeated measure. This analysis produced main effects for both domain,  $F(1,80) = 4.12$ ,  $p < .05$ , and gender of child,  $F(1,80) = 4.41$ ,  $p < .05$  (See Table 8). The remaining effects were not significant. Inspection of the mean differences for these factors revealed that mothers' progress ratings for sociability were significantly higher than those given for prosocial behavior, and across both dimensions, girls ( $\bar{x}=4.71$ ) were rated significantly higher than boys ( $\bar{x}=4.25$ ).

Second, a one-way ANOVA (child's gender) performed on concerns failed to produce significant effects. Thus, the level of mothers' reported concerns did not appear to vary with children's gender.

#### Predicting Concerns from Mothers' Progress Perceptions

Bivariate correlations and multiple regression analyses were conducted to determine whether mothers' concerns could be predicted from the two progress perception measures. Scores for

the sociability and concerns measures were negatively related,  $r = -.33$ ,  $p < .01$ , however, the correlation between perceived prosocial behavior and concerns ( $r = -.05$ ) was not significant.

Next, to determine the relative importance of the two progress measures as predictors of concerns, a series of hierarchical regression analyses was conducted (See Table 7). To control for gender differences in subsequent predictors, child's gender was entered into the equation first. The domains of prosocial behavior and sociability were alternately entered on the second and third steps. Results indicated that after controlling for child's gender and perceived prosocial behavior, perceived sociability accounted for a significant proportion of the variance in mothers' concerns ( $R^2$  change = .12,  $p < .05$ ). Mothers' perceptions of children's progress in prosocial behavior domain did not predict concerns.

#### Parents' Perceptions of Control and Task Difficulty for the Investigated Progress Dimensions

Mothers' perceptions of their control over their child's progress was examined by conducting a 2 (child's gender) by 2 (social domain) ANOVA with domain as a repeated measure (See Table 8).

The analysis revealed a main effect for domain,  $F(1,61) = 71.84$ ,  $p < .001$ , and the remaining effects were not significant. It was found that mean controllability ratings for prosocial behavior were significantly higher than mean controllability ratings for sociability.

Differences in mothers' perceptions of task difficulty for each progress domain were examined by conducting a 2 (child's gender) by 2 (social domain) ANOVA with domain as a repeated measure. This analysis revealed a main effect for domain,  $F(1,61) = 11.33$ ,  $p < .01$  only. It was found that mean task difficulty ratings for sociability were significantly lower (more difficult to change) than mean ratings for prosocial behavior.

In summary, these findings suggest that parents feel less control over some aspects of children's progress (e.g., sociability) than others. In this case, sociability was also viewed as more difficult to socialize than prosocial behavior. The fact that child sociability is viewed by mothers as less under their control and more difficult to socialize may also help to explain why perceived delays in sociability but not prosocial behavior predict mothers' concerns. Parents may feel higher levels of concern when perceived child delays occur in areas that are viewed as "uncontrollable" or difficult to influence -- in this case the domain of child sociability.

#### Predicting Parental Management from Mothers' Perceived Progress and Concerns

Directive supervision. Bivariate correlations and multiple regression analyses were conducted to evaluate the degree to which mothers' verbal involvement could be predicted from their perceptions of progress and concerns. Significant bivariate correlations (listed in Table 9) indicated that mothers' perceptions of children's sociable behavior was positively correlated with mothers' level of verbal involvement in play. The relative importance of the progress and concerns measures was

examined in a hierarchical regression analysis. Gender was entered into the equation first, after which the two progress measures (prosocial behavior and sociability) were alternately entered on the second and third steps of the equation. Mothers' concern scores were entered on the fourth step. The overall  $Rsq$  for the analysis performed on the verbal involvement scores was significant ( $Rsq = .18, p < .05$ ) and a significant increment was found only for the perceived sociability measure ( $Rsq$  change = .15) (See Table 10). Moreover, additional analyses revealed that, regardless of the order in which the progress perceptions and concerns were entered into the equation, only the perceived sociability measure emerged as a significant predictor (See Table 11). This finding suggests that parents who perceived their children to be more sociable tended to have higher levels of verbal involvement during children's play.

Interactive supervision. Bivariate correlations and multiple regression analyses were conducted to evaluate the degree to which mothers' participation in play could be predicted from their perceptions of progress and their concerns. Significant bivariate correlations (listed in Table 9) indicated that mothers' perceptions of children's sociable behavior was positively correlated with mothers' participation in play. For the hierarchical regression analysis performed on parents' participation in play, the overall  $Rsq$  was .21 and perceived sociable behavior ( $Rsq$  change = .18) was the only significant predictor (See Table 12). Regardless of order of entry of perceived progress and concern, only the perceived sociability

measure emerged as a significant predictor (See Table 13).

This finding suggests that parents who perceive their children to be more sociable tended to have higher levels of participation in children's play.

Policies. Bivariate correlations and multiple regression analyses were also calculated to determine whether mothers' policies for children's play opportunities could be predicted from their perceptions of children's progress and concerns. Significant bivariate correlations (listed in Table 14) indicated that mothers' perceptions of children's sociable behavior was positively correlated with how often they encouraged their children to get together with a playmate ( $r=.27$ ,  $p<.05$ ) and the child's control over choice of playmate activities ( $r=.34$ ,  $p<.01$ ).

A multiple regression analysis revealed that the overall Rsq for the analysis performed on the activity decision scores was significant (Rsq=.15,  $p<.05$ ) as was the significant increment attributable to perceived sociable behavior (Rsq change = .11) (See Table 15). After controlling for children's gender and mothers' concerns, perceived sociable behavior still accounted for a significant amount of variance in activity decision (Rsq change = .10) (See Table 18). Children who were viewed by their mothers as more sociable were more likely to make decisions about play activities independently of their mothers.

#### DISCUSSION

A general purpose of the present study was to examine the relation between mothers' perceptions of their children's peer relations, their concerns, and their management styles. First, new measures of parents' progress perceptions, parental

concerns, and teacher ratings of classroom behavior were developed. Our results provide evidence that gender differences exist in mothers' perceptions of children's progress in peer relations. Girls were viewed as being more advanced at peer relations than boys. Moreover, across gender, mothers of preschoolers saw their children as more sociable than prosocial.

The results partially confirm the hypothesis that mothers' perceptions of children's progress in peer relations predict their concerns. Although the level of concern reported by mothers in this sample was not high, when higher levels of worry were reported, it was more often associated with children's sociability than their prosocial behavior.

One reason why perceived sociability may be more related to concerns than prosocial behavior is because delays in this area are perceived by mothers as less under their control and more difficult to socialize. More specifically, our findings show that mothers reported greater concern in relation to behaviors that they saw as difficult to influence and control (e.g., perceived child sociability). Relatedly, mothers may feel greater concern about sociability because they may attribute delays to factors that are internal to the child. Rubin and colleagues (1989), for example, found that mothers tended to suggest child-centered attributions (e.g., personality or biogenetic factors) more frequently as the basis for children's friendship skills and leadership abilities than for prosocial tendencies such as sharing. Mothers, it was found, believed that friendship and leadership skills were more inherent than sharing,

and were less dependent on socialization influences. Rubin et al. suggest that beliefs based on these types of child-centered attributes may discourage parents' efforts to compensate for perceived delays in sociable behavior.

Our findings do not suggest that mothers' worries are an important antecedent of management. The apparent lack of relation between concern and management is puzzling, and deserves further scrutiny. Perhaps concern does motivate parental interventions, such as the management behaviors studied here, but only when it rises above a certain threshold or level of severity. In this sample, few of the participating mothers expressed high levels of concern. Alternatively, it may be the case that mothers' progress perceptions (e.g., perceived delays) are more closely linked to their preventive or compensatory socialization practices than are concerns. Concerns, although arousing, may also have a debilitating effect on parents' motivation and confidence and, thus, interfere with efforts to overcome perceived problems or delays.

In addition, our data reveal that mothers who hold a higher opinion of their child's sociability not only worry less, but also tend to be more involved in their child's informal play activities. Given the correlational nature of our design, both parent- and child-effects interpretations are plausible. For example, it may be the case that mothers who see their children as sociable play a more direct role in nurturing and monitoring the expression of these behaviors during informal play activities with peers. Conversely, it may be the case that socially precocious children elicit greater parental involvement

in their social activities with peers. Mothers may, for example, find it more rewarding to monitor and participate in the play of sociable children.

The same kinds of interpretations may account for the relations observed between perceived sociability and parents' informal play policies. Mothers who view their children as more sociable may permit their children greater autonomy in their pursuit of peers and choice of play activities. In contrast, perceived delays in child sociability may encourage mothers to "take charge" or exert greater control over children's play opportunities and activities. That is, parents of less sociable children may compensate for this delay by arranging and structuring more of their informal play activities.

In conclusion, more research is needed to understand fully parents' motivations for managing their children's peer relations. First, longitudinal studies are needed to determine whether children's behaviors influence parents' management or whether the opposite direction of effect is true. The current findings also need to be expanded by exploring more than mothers' self-reports of their involvement, (i.e., include fathers) and by gathering both parent and child data over longer time intervals. In addition, it will be important to determine whether the relatively low levels of concern reported by parents in this sample are representative of those attributable to fathers, and to families within differing ethnic and socioeconomic strata.

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Table 1

Items on the Perceived Progress, Perceived Control, Perceived Task Difficulty, and Parental Concerns Measures

- 
1. Making friends
  2. Outgoing in group situations
  3. Developing close friendships
  4. Cooperative with peers
  5. Popular with peers
  6. Starting play activities with peers
  7. Friendliness toward other children
  8. Converses easily with peers
  9. Comfortable in groups of peers
  10. Resolves conflicts with peers
  11. Keeping friends
  12. Kind toward peers
  13. Shows leadership in groups of peers
  14. Finds own friends
  15. Starting conversations with peers
  16. Initiating group activities with peers
  17. Entering peers' ongoing play activities
  18. Becoming liked by most peers
  19. Interested in spending time with friends
  20. Joining new peer groups
-

Table 2

Item Means and Standard Deviations for the Parental Perceived  
Progress Measure (1-7 scale)

| Item Abbreviation                           | Item mean | Item SD |
|---------------------------------------------|-----------|---------|
| Cooperates                                  | 4.4       | 1.07    |
| Resolves conflict                           | 4.0       | .81     |
| Keeping friends                             | 4.6       | 1.10    |
| Kind toward peers                           | 4.5       | 1.09    |
| Outgoing in groups                          | 4.8       | 1.45    |
| Converses easily w/peers                    | 5.0       | 1.38    |
| Comfortable in groups                       | 4.8       | 1.38    |
| Joins new peer groups                       | 4.3       | 1.04    |
| Making friends                              | 4.8       | 1.40    |
| Friendly toward peers                       | 5.0       | 1.22    |
| Initiates group activities                  | 4.4       | 1.21    |
| Leader in peer group                        | 4.4       | 1.40    |
| Popular with peers                          | 4.5       | 1.15    |
| Enters ongoing play                         | 4.1       | 1.08    |
| Becoming liked by peers                     | 4.5       | 1.13    |
| Develops friendships                        | 4.8       | 1.28    |
| Starts play activities                      | 4.7       | 1.38    |
| Finds own friends                           | 4.5       | 1.28    |
| Starts conversations                        | 4.7       | 1.41    |
| Interested in spending<br>time with friends | 4.9       | 1.23    |

Table 3

Factor Pattern of Mothers' Perceived Progress of Their Children's  
Peer Relations

| Item                                  | I     | II  | III | IV    |
|---------------------------------------|-------|-----|-----|-------|
| Cooperates                            | .86   |     |     |       |
| Resolves conflicts                    | .63   |     |     |       |
| Keeping friends                       | .59   |     |     |       |
| Kind toward peers                     | .82   |     |     |       |
| Making friends                        |       | .68 |     |       |
| Outgoing in groups                    |       | .82 |     |       |
| Converses easily w/peers              |       | .88 |     |       |
| Comfortable in groups                 |       | .80 |     |       |
| Joins new peer groups                 |       | .68 |     |       |
| Friendly toward peers                 |       | .61 |     |       |
| Initiates group activities            |       | .64 |     | (.56) |
| Leader in peer group                  |       | .80 |     |       |
| Popular with peers                    |       |     | .58 |       |
| Enters ongoing play                   |       |     | .85 |       |
| Liked by peers                        | (.55) |     | .58 |       |
| Develops friendships                  |       |     |     | .61   |
| Starts play activities                |       |     |     | .72   |
| Finds own friends                     |       |     |     | .79   |
| Starts conversations w/peers          | (.54) |     |     | .71   |
| Interested in spending time w/friends |       |     |     | .73   |

Table 4

Correlations Between Mothers' Progress Perceptions and  
Teacher Ratings of Children's Behavior

|                                                          | Teacher Ratings of Children's Behavior |                      |                        |                     |
|----------------------------------------------------------|----------------------------------------|----------------------|------------------------|---------------------|
|                                                          | Prosocial<br>Behavior                  | Outgoing<br>Behavior | Antisocial<br>Behavior | Asocial<br>Behavior |
| <u>Mothers'</u><br><u>Progress</u><br><u>Perceptions</u> |                                        |                      |                        |                     |
| Prosocial<br>Behavior                                    | .31*                                   | .38**                | -.28*                  | -.27*               |
| Sociable                                                 | n.s.                                   | .51***               | n.s.                   | -.40**              |

Note. \*  $p < .05$  \*\*  $p < .01$  \*\*\*  $p < .001$

Table 5

Item Factor Loadings, Means and Standard Deviations for the  
Parental Concerns Measure (1-7 scale)

| Item Abbreviation       | Factor Loading | Item mean | Item SD |
|-------------------------|----------------|-----------|---------|
| Cooperates              | .70            | 3.0       | 1.81    |
| Resolves conflict       | .84            | 3.0       | 1.79    |
| Keeping friends         | .89            | 2.4       | 1.59    |
| Kind toward peers       | .84            | 2.9       | 1.77    |
| Outgoing in groups      | .84            | 2.8       | 1.74    |
| Friendly toward peers   | .85            | 2.3       | 1.88    |
| Converses easily w/peer | .88            | 2.1       | 1.80    |
| Comfortable in groups   | .85            | 2.5       | 1.78    |
| Initiates activities    | .90            | 2.2       | 1.50    |
| Joins new peer groups   | .90            | 2.3       | 1.52    |
| Popular with peers      | .85            | 2.2       | 1.51    |
| Leader in peer group    | .80            | 2.4       | 1.59    |
| Enters ongoing play     | .81            | 2.7       | 1.73    |
| Becoming liked by peers | .82            | 2.5       | 1.78    |
| Making friends          | .92            | 2.4       | 1.77    |
| Develops friendships    | .80            | 2.4       | 1.58    |
| Starts play activities  | .84            | 2.2       | 1.53    |
| Finds own friends       | .91            | 2.4       | 1.82    |
| Starts conversations    | .90            | 2.2       | 1.49    |
| Interested in friends   | .78            | 2.3       | 1.80    |

Table 6

Means and SDs of Progress Domains and Gender Differences

| Domain        | Mean | SD   |
|---------------|------|------|
| Prosocial     | 4.37 | .82  |
| Sociable      | 4.63 | 1.18 |
| <u>Gender</u> |      |      |
| Boys          | 4.25 | 1.03 |
| Girls         | 4.71 | 1.00 |

Table 7

Hierarchical Regression Analysis: Predicting Concerns from  
Dimensions of Perceptions of Progress

| Step | Variable Entered | Beta at Step of Entry | Rsq Change | Overall Regression |      |      |         |
|------|------------------|-----------------------|------------|--------------------|------|------|---------|
|      |                  |                       |            | R                  | Rsq  | df   | Fchange |
| 1    | Sex              | -.13                  | .02        | .13                | .02  | 1,60 | 1.02    |
| 2    | Prosocial        | -.03                  | .00        | .13                | .02  | 2,59 | .04     |
| 3    | Sociable         | -.44                  | .12**      | .38                | .14* | 3,58 | 8.35    |
| 1    | Sex              | -.13                  | .02        | .13                | .02  | 1,60 | 1.02    |
| 2    | Sociable         | -.31                  | .09*       | .33                | .11  | 2,59 | 8.07    |
| 3    | Prosocial        | .22                   | .03        | .38                | .14* | 3,58 | 2.21    |

Note. \*  $p < .05$ , \*\*  $p < .01$

Table 8

Means and Standard Deviations of the Domains of Perceived Control  
and Task Difficulty (1-7 scale)

|                    | Mean | SD   |
|--------------------|------|------|
| Measure and Domain |      |      |
| Perceived control  |      |      |
| Sociable           | 2.87 | .97  |
| Prosocial behavior | 3.77 | 1.04 |
| Task difficulty    |      |      |
| Sociable           | 3.25 | 1.09 |
| Prosocial behavior | 3.58 | .99  |

Table 9

Correlations Among Mothers' Involvement in Play, Perceptions of Progress, and Concerns

|                                    | Participation | Verbal<br>Involvement |
|------------------------------------|---------------|-----------------------|
| Verbal                             | .53***        |                       |
| Concern                            | -.14          | -.01                  |
| Perceived<br>Prosocial<br>Behavior | .21           | .11                   |
| Perceived<br>Sociable<br>Behavior  | .37**         | .35**                 |

Nota. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Table 10

Hierarchical Regression Analysis: Predicting Parents' Verbal Involvement from Dimensions of Perceptions of Progress and Concern

| Step | Variable Entered | Beta at Step of Entry | Change | Overall Regression |      |      |         |
|------|------------------|-----------------------|--------|--------------------|------|------|---------|
|      |                  |                       |        | R                  | Rsq  | df   | Fchange |
| 1    | Sex              | -.07                  | .00    | .07                | .00  | 1,52 | .26     |
| 2    | Sociable         | .40                   | .15**  | .39                | .15  | 2,51 | 8.95    |
| 3    | Prosocial        | -.18                  | .02    | .41                | .17  | 3,50 | .93     |
| 4    | Concern          | .13                   | .02    | .43                | .18* | 4,49 | .94     |
| 1    | Sex              | -.07                  | .00    | .07                | .00  | 1,52 | .26     |
| 2    | Prosocial        | .12                   | .01    | .14                | .02  | 2,51 | .78     |
| 3    | Sociable         | .49                   | .15**  | .41                | .17  | 3,50 | 8.99    |
| 3    | Concern          | .13                   | .02    | .43                | .18* | 4,49 | .94     |

Note. \*  $p < .05$ , \*\*  $p < .01$

Table 11

Hierarchical Regression Analysis: Predicting Parents' Verbal Involvement from Concern and Dimensions of Perceptions of Progress

| Step | Variable Entered | Beta at Step of Entry | Rsq Change | Overall Regression |      |      |         |
|------|------------------|-----------------------|------------|--------------------|------|------|---------|
|      |                  |                       |            | R                  | Rsq  | df   | Fchange |
| 1    | Sex              | -.07                  | .00        | .07                | .00  | 1,52 | .26     |
| 2    | Concern          | -.02                  | .00        | .07                | .01  | 2,51 | .03     |
| 3    | Prosocial        | .12                   | .01        | .14                | .02  | 3,50 | .74     |
| 4    | Sociable         | .55                   | .18**      | .43                | .18* | 4,49 | 9.89    |
| 1    | Sex              | -.07                  | .00        | .07                | .00  | 1,52 | .28     |
| 2    | Concern          | -.02                  | .00        | .07                | .01  | 2,51 | .03     |
| 3    | Sociable         | .43                   | .18**      | .40                | .18  | 3,50 | 9.42    |
| 3    | Prosocial        | -.18                  | .02        | .43                | .18* | 4,49 | 1.28    |

Nota. n  $p < .075$ , \*  $p < .05$ , \*\*  $p < .01$

Table 12

Hierarchical Regression Analysis: Predicting Parents'  
Participation in Play from Dimensions of Perceptions of Progress  
and Concern

| Step | Variable Entered | Beta at Step of Entry | Rsquared Change | Overall Regression |          |      |         |
|------|------------------|-----------------------|-----------------|--------------------|----------|------|---------|
|      |                  |                       |                 | R                  | Rsquared | df   | Fchange |
| 1    | Sex              | -.16                  | .03             | .16                | .03      | 1,52 | 1.37    |
| 2    | Sociable         | .45                   | .18**           | .48                | .21      | 2,51 | 11.88   |
| 3    | Prosocial        | -.00                  | .00             | .48                | .21      | 3,50 | .00     |
| 4    | Concern          | -.04                  | .00             | .48                | .21*     | 4,49 | .09     |
| 1    | Sex              | -.16                  | .03             | .16                | .03      | 1,52 | 1.37    |
| 2    | Prosocial        | .25                   | .08m            | .29                | .09      | 2,51 | 3.36    |
| 3    | Sociable         | .45                   | .12**           | .48                | .21      | 3,50 | 7.84    |
| 4    | Concern          | -.04                  | .00             | .48                | .21*     | 4,49 | .09     |

Note. m  $p < .075$ , \*  $p < .05$ , \*\*  $p < .01$

Table 13

Hierarchical Regression Analysis: Predicting Parents'  
Participation in Play from Concerns and Dimensions of Perceptions  
of Progress

| Step | Variable Entered | Beta at Step of Entry | Rsq Change | Overall Regression |      |      |          |
|------|------------------|-----------------------|------------|--------------------|------|------|----------|
|      |                  |                       |            | R                  | Rsq  | df   | Fchange, |
| 1    | Sex              | -.16                  | .03        | .16                | .03  | 1,52 | 1.37     |
| 2    | Concern          | -.17                  | .03        | .23                | .05  | 2,51 | 1.50     |
| 3    | Prosocial        | .25                   | .08        | .33                | .11  | 3,50 | 3.27     |
| 4    | Sociable         | .43                   | .10*       | .48                | .21  | 4,49 | 8.19     |
| 1    | Sex              | -.18                  | .03        | .18                | .03  | 1,52 | 1.37     |
| 2    | Concern          | -.17                  | .03        | .23                | .05  | 2,51 | 1.50     |
| 3    | Sociable         | .43                   | .18**      | .48                | .21  | 3,50 | 10.00    |
| 4    | Prosocial        | .01                   | .00        | .48                | .21* | 4,49 | .00      |

Note. n  $p < .075$ , \*  $p < .05$ , \*\*  $p < .01$

Table 14

Correlations Among Mothers' Policies for Children's Play  
Opportunities, Perceptions of Progress, and Concern

|                                    | Frequency of<br>Encouragement | Activity<br>Decision |
|------------------------------------|-------------------------------|----------------------|
| Activity<br>Decision               | .20                           |                      |
| Concern                            | -.03                          | -.11                 |
| Perceived<br>Prosocial<br>Behavior | .21                           | .09                  |
| Perceived<br>Sociable<br>Behavior  | .27*                          | .34**                |

Note. \*  $p < .05$ , \*\*  $p < .01$

Table 15

Hierarchical Regression Analysis: Predicting Decision about Play Activity from Dimensions of Perceptions of Progress and Concern

| Step | Variable Entered | Beta at Step of Entry | Rsq Change | Overall Regression |      |      |         |
|------|------------------|-----------------------|------------|--------------------|------|------|---------|
|      |                  |                       |            | R                  | Rsq  | df   | Fchange |
| 1    | Sex              | .20                   | .04        | .20                | .04  | 1,80 | 2.83    |
| 2    | Sociable         | .31                   | .09*       | .38                | .13  | 2,59 | 8.07    |
| 3    | Prosocial        | -.18                  | .02        | .39                | .15  | 3,58 | 1.35    |
| 4    | Concern          | .04                   | .00        | .39                | .15* | 4,57 | .09     |
| 1    | Sex              | .20                   | .04        | .20                | .04  | 1,80 | 2.83    |
| 2    | Prosocial        | .08                   | .00        | .21                | .05  | 2,59 | .21     |
| 3    | Sociable         | .41                   | .11**      | .39                | .15  | 3,58 | 7.22    |
| 4    | Concern          | .04                   | .00        | .39                | .15* | 4,57 | .09     |

Note. \*  $p < .05$ , \*\*  $p < .01$

Table 18

Hierarchical Regression Analysis: Predicting Decision about Play Activity from Concerns and Dimensions of Perceptions of Progress

| Step | Variable Entered | Beta at Step of Entry | Rsq Change | Overall Regression |      |      |         |
|------|------------------|-----------------------|------------|--------------------|------|------|---------|
|      |                  |                       |            | R                  | Rsq  | df   | Fchange |
| 1    | Sex              | .20                   | .04        | .20                | .04  | 1,80 | 2.83    |
| 2    | Concern          | -.08                  | .01        | .22                | .05  | 2,59 | .42     |
| 3    | Prosocial        | .08                   | .00        | .23                | .05  | 3,58 | .19     |
| 4    | Sociable         | .43                   | .10*       | .39                | .15* | 4,57 | 8.78    |
| 1    | Sex              | .20                   | .04        | .20                | .04  | 1,80 | 2.83    |
| 2    | Concern          | -.08                  | .01        | .22                | .05  | 2,59 | .42     |
| 3    | Sociable         | .31                   | .08*       | .38                | .13  | 3,58 | 5.52    |
| 4    | Prosocial        | -.18                  | .02        | .39                | .15* | 4,57 | 1.41    |

Note. \*  $p < .05$ , \*\*  $p < .01$